

09-23-03

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PTO/SB/21 (08-03)

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/821,143
Filing Date	4/7/2004
First Named Inventor	Li
Art Unit	2631
Examiner Name	Not yet assigned
Attorney Docket Number	012.P3001

Total Number of Pages in This Submission

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	36 IDS Citations
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
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<input type="checkbox"/> Response to Missing Parts/Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Michelle C. Craig, Reg. No. 52,776 Berkeley Law and Technology Group
Signature	<i>Michelle C. Craig</i>
Date	9/21/05

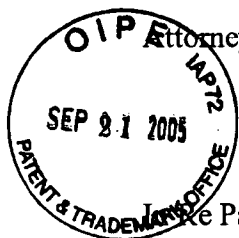
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Typed or printed name	Jessica A. Harvey
Signature	<i>Jessica A. Harvey</i>
Date	9/21/05

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Attorney's Docket No. 012.P3001

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of:

Li

Application No.: 10/821,143

Filed: 4/7/2004

For: MULTI-ANTENNA WIRELESS
DATA PROCESSING SYSTEM

Examiner: Not Yet Assigned

Art Unit: 2631

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INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Sir:

In accordance with the duty of disclosure, enclosed is a copy of Information Disclosure Statement by Applicant (form PTO/SB/08B), which is being submitted before the mailing of the First Office Action. It is respectfully requested that the cited document(s) be considered and that the enclosed copy of PTO/SB/08B be initialed by the Examiner to indicate such consideration and a copy thereof returned to Applicant(s).

The submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made in the subject application and is not to be construed as an admission that the information cited in this statement is material to patentability.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. 1.97(b). Applicant(s) believe that no additional fees are required for this Information Disclosure

Statement. However, if any additional fees are required in connection with this Information Disclosure Statement the commissioner is hereby authorized to charge such fees to our Deposit Account 50-3130.

Respectfully submitted,

Dated: 9/21/05

Michelle C. Craig
Michelle C. Craig
Reg. No. 52,776

Berkeley Law & Technology Group
1700 NW 167th Place, Suite 240
Beaverton, OR 97006
Phone: 503.439.6500

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Substitute for form 1449/PTO

Complete if Known

Application Number	10/821,143
Filing Date	April 7, 2004
First Named Inventor	Li
Art Unit	2631
Examiner Name	not yet assigned
Attorney Docket Number	012.P3001



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 5

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/JH/	1	US- 4,635,063	01/06/1987	Chang et al.	
	2	US- 5,028,931	07/02/1991	Ward	
	3	US- 5,315,532	05/24/1994	Comon	
	4	US- 5,383,164	01/17/1995	Sejnowski et al.	
	5	US- 5,596,333	01/21/1997	Bruckert	
	6	US- 5,949,833	09/07/1999	Weerackody	
	7	US- 5,959,966	09/28/1999	Torkkola	
	8	US- 5,982,327	11/09/1999	Vook et al.	
	9	US- 6,018,317	01/25/2000	Dogan et al.	
	10	US- 6,128,276	10/03/2000	Agee	
	11	US- 6,160,839	12/12/2000	Zhang	
	12	US- 6,188,913	02/13/2001	Fukagawa et al.	
	13	US- 6,201,955	03/13/2001	Jasper et al.	
	14	US- 6,236,862	05/22/2001	Erten et al.	
	15	US- 6,298,082	10/02/2001	Harrison	
	16	US- 6,314,305	11/06/2001	Solondz et al.	
	17	US- 6,314,394	11/06/2001	Finn	
	18	US- 6,321,200	11/20/2001	Casey	
/JH/	19	US- 6,370,129	04/09/2002	Huang	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
/JH/	20	EP 1 152 548	07.11.2001	Lucent Technologies		
	21	WO 94/29967	22.12.1994	The Salk Institute		
	22	WO 98/37638	27.08.1998	AT&T Wireless		
	23	WO 98/37654	27.08.1998	AT&T Wireless		
	24	WO 98/58450	23/12/1998	Clarity, LLC		
/JH/	25	WO 98/59450	30/12/1998	Motorola, Inc.		

Examiner
Signature

/Jaime Holliday/

Date
Considered

02/12/2008

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/821,143
Filing Date	April 7, 2004
First Named Inventor	Li
Art Unit	2631
Examiner Name	not yet assigned
Attorney Docket Number	012.P3001

Sheet 2 of 5**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/JH/	26	US- 6,404,386	06/11/2002	Proctor, Jr. et al.	
	27	US- 6,453,177	09/17/2002	Wong et al.	
	28	US- 6,665,545	12/16/2003	Raleigh et al.	
	29	US- 2001/0005685	06/28/2001	Nishimori et al.	
	30	US- 2002/0101942	08/01/2002	Lindgren et al.	
	31	US- 2003/0072382	04/17/2003	Raleigh et al.	
/JH/	32	US- 2003/0220112	11/27/2003	Bugeja	
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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
/JH/	33	WO 99/10993	04.03.1999	Nokia Telecommunications		
	34	WO 99/55030	28.10.1999	Telecordia Tech.		
	35	WO 00/33526	08.06.2000	Ericsson, Inc.		
	36	WO 01/65725	07.09.2001	Nokia Networks OY		
	37	WO 02/093784	21.11.2002	Qualcomm Inc.		
/JH/	38	WO 02/47286	13.06.2002	Nokia Corporation		

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		First Named Inventor	Li		
		Art Unit	2631		
		Examiner Name	not yet assigned		
Sheet	3	of	5	Attorney Docket Number	012.P3001

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/JH/	39	TEW-AP100 11 Mbps Wireless Access Point Product Description; www.trendward.com/products/TEW-AP100.htm; 10/29/01; 4 pages.	
	40	Compaq WL400 11 Mbps Wireless LAN Hardware Access Point Product Description; www.compaq.com/products/wireless/wlan/wl400-specifications.html; 10/29/01; 2 pgs.	
	41	Wireless Protocols: ewd's Valhalla Series Wireless Processors; www.ewdi.com/dp.dpml?dplevel=2; 10/29/01; 2 pages.	
	42	DIMITRIADIS et al.; "Enhanced Cellular Network Performance with Adaptive Coverage Based on Position Location of Mobile Terminals"; white paper; 4 pgs.	
	43	GESBERT et al.; "Technologies and Performance for Non-Line-of-Sight Broadband Wireless Access Networks"; IEEE Communications Magazine; April 2002; pgs. 86-95.	
	44	POON et al.; "Multiple-Antenna Channels From A Combined Physical and Networking Perspective"; white paper; 5 pages.	
	45	BANA et al.; "Space Division Multiple Access (SDMA) for Robust ad hoc Vehicle Communication Networks"; The IEEE 4th Int'l. Conference on Intelligent Transportation Systems; white paper; 6 pages.	
	46	PAULRAJ et al.; "Smart Antennas for Mobile Communications"; Encyclopedia for Electrical Engineering; John Wiley Pub.Co.; 2000; 15 pgs.	
	47	OLSON, STEVEN C.; "Antenna Technologies for Wireless Solutions"; white paper/presentation; 9/10/98; 35 pages.	
/JH/	48	"A Guide to IEEE 802.11b Wireless Networking Technology"; SMART Modular Technologies, Inc. 2001; 32 pages.	

Examiner Signature	/Jaime Holliday/	Date Considered	02/12/2008
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Art Unit	2631
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Attorney Docket Number	012.P3001

Sheet 4

of

5

NON PATENT LITERATURE DOCUMENTS

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/JH/	49	SARRIGEORGIDIS et al., "Massively Parallel Wireless Reconfigurable Processor Architecture and Programming", white paper, 8 pages.	
	50	MAEDA et al., "Blind Signal Separation Via Simultaneous Perturbation Method", white paper, 4 pages.	
	51	RABAEY, Jan M., "Silicon Architectures for Wireless Systems-Part 1", Berkeley Wireless Research Center white paper, 52 pages.	
	52	RABAEY, Jan M., "Silicon Architectures for Wireless Systems-Part 2 Configurable Processors", Berkeley Wireless Research Center white paper, 66 pages.	
	53	RABAEY, Jan M., "Wireless Beyond the Third Generation-Facing the Energy Challenge"; Berkeley Wireless Research Center; ISLPED 2001, Huntington Beach; 38 pages.	
	54	Micronet SP900 Series RadioLink Wireless LAN Product Information Sheet; March 2001; 4 pages.	
	55	DEVLIN, MALACHY Ph.D.; "How to Make Smart Antenna Arrays"; Xcell Journal; Spring 2003, 4 pages.	
	56	"Smart Antenna Technology and Applications" Symposium Presentation, 40 pages.	
	57	ELLINGSON et al., "Open Loop Forward Link Beamforming with Diversity Switching", IEEE Transactions on Vehicular Technology, April 30, 2001, 22 pages.	
/JH/	58	TEHRANI, ARDAVAN MALEKI, "Space-Time Coding Over a Code Division Multiple Access System", IEEE 1999, pgs. 134-138.	

Examiner Signature	/Jaime Holliday/	Date Considered	02/12/2008
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		Art Unit	2631
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Sheet 5	of 5	Attorney Docket Number	012.P3001

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/JH/	59	POON et al., "An Adaptive Multi-Antenna Transceiver for Slowly Flat Fading Channels", white paper, 3/13/02, 20 pages.	
	60	LACKPOUR, et al., "Architecture and Predicted Performance of an IEEE 802.11b-like WMAN Transceiver at 5.8GHz", white paper, 7 pages.	
	61	LIU, et al., "A System-Theoretic Foundation For Blind Signal Separation of Mimo-Fir Convolutional Mixtures - A Review", white paper, 7 pages.	
/JH/	62	KELLY, RYAN, "A Space Division Multiple Access System - An Analysis and Prototype Proposal, ENEL 698 Final Project Report, 12/17/97, 66 pgs.	

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